UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,793	08/03/2004	Bogdan Kasztenny	153527	4792

23413 7590 09/02/2008

CANTOR COLBURN, LLP
20 Church Street
22nd Floor
Hartford, CT 06103

EXAMINER	
TABONE JR, JOHN J	
ART UNIT	**PAPER NUMBER**
2117	

MAIL DATE	DELIVERY MODE
09/02/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/710,793	KASZTENNY ET AL.	
	Examiner	Art Unit	
	JOHN J. TABONE JR	2117	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 August 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *08032004,08042004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claim 1-43 are pending in the application and have been examined.

Information Disclosure Statement

2. The information disclosure statements (IDSs) submitted on 08/03/2004 and 08/04/2004 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Drawings

3. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). This is based on the statement made in Applicants' disclosure in paragraph [0013] "FIG. 1 depicts a typical application of a digital fault recorder (DFR) and a sequence of events (SOE) recorder". Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The abstract of the disclosure is objected to because it contains more than 150 words. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The term “a user-programmable triggering mechanism” of claim 1 and “a self-description mechanism” of claim 10 can not be found in the specification.

Claim Objections

6. **Claims 1 and 43** are objected to because of the following informalities:

Change “the analog output signals” to “the plurality of analog output signals”. Appropriate correction is required.

Changing "data packets" to "incoming data packets" in lines 20-21 will clear up the 35 USC § 112. second paragraph, insufficient antecedent basis rejections below. Appropriate correction is required.

It is not clear whether the incoming analog signals in "storing the incoming analog output" in line 27 are the "received plurality of analog output signals" in line 6 or the sampled and digitized analog output signals in line 17. Appropriate clarification and correction is required.

7. **Claim 43** is objected to due to the phrase "configured for:". This should be reworded to recite "configured to perform the steps of:"

8. **Claims 34 and 35** are objected to because of the following informalities: Change "the analog" on line 2 to "the plurality of analog output signals". Appropriate correction is required.

9. **Claims 21, 22, 24 and 25** are objected to because of the following informalities: Change "the removable memory medium" to "the removable memory storage medium". Appropriate correction is required.

10. **Claim 23** is objected to because of the following informalities: Change "the memory medium" to "the memory storage medium". Appropriate correction is required.

11. **Claim 28** is objected to because of the following informalities: Change "absent electrical wires an internal power source" to "absent electrical wires and an internal power source". Appropriate correction is required.

12. **Claim 32** is objected to because of the following informalities: "the device" on line 1 should be changed to recite "the hosting device".

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 1-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 3, 6, 16, 17 and 43:

These claims recite the limitation "the incoming data packets". There is insufficient antecedent basis for this limitation in these claims. Please note the objection above that will clear up these rejections.

Claim 14:

This claim recites the limitation "the wireless communication medium". There is insufficient antecedent basis for this limitation in the claim.

Claim 17:

This claim recites the limitation "the monitored incoming data packets". There is insufficient antecedent basis for this limitation in the claim.

Claims 2-42:

These claims are also rejected because they depend on claim 1 and have the same problems of insufficient antecedent basis.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 1-12, 15-17 and 30-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Admitted Prior Art, hereinafter **AAPA**, in view of **Zhang et al.** (US- 5535193), hereinafter Zhang.

Claims 1 and 43:

Note: The DAU 34, DIU 38, and SU 42 (of Fig. 2) are presently known as parts of existing DFR and SER devices 22. (¶ [0022]).

AAPA teaches a method and an apparatus (**traditional digital fault recorder (DFR) and sequence of events (SOE) recorder 22**) for recording analog signals and digitally encoded information associated with primary devices of an electric power system and secondary devices associated with the electric power system, the method comprising: receiving a plurality of analog output signals from corresponding transducers of the electric power system (**data acquisition unit (DAU) 32 capable of interfacing with physical signals including voltage signals 34 from the VTs and current signals 36 from the CT**); receiving a plurality of ON/OFF status signals from the primary and secondary devices of the electric power system (**digital input unit (DIU) 38 capable of interfacing with the ON/OFF signals 40**); receiving at least one of a time-synchronization analog signal from a time synchronization source and a time-

synchronization data packet from the time synchronization source over a communication medium (**synchronization unit (SU) 42 capable of synchronizing the device 30 to an externally provided reference clock**); maintaining an internal clock synchronized with the synchronization source for time synchronization (**SU 42**); sampling and digitizing the analog output signals (**DAU 32**); monitoring at least one of a status and a change of status of the ON/OFF status signals (**DIU 38**); receiving digitally encoded information signals as *incoming* data packets via a communication port (**In the past few years digital protection and control devices, or even instrument transformers, have emerged to work with power system signals that are not in the form of physical or analog quantities, but in the form of digital data packets exchanged over appropriate communication channels**, ¶ [0006]); analyzing both the analog output signals and digitally encoded information signals using a user-programmable triggering mechanism (**central processing unit (CPU) 50**).

AAPA does not explicitly teach "decoding and analyzing the content of the incoming data packets". However, **AAPA** does teach [i]n the past few years digital protection and control devices, or even instrument transformers, have emerged to work with power system signals that are not in the form of physical or analog quantities, but in the form of digital data packets exchanged over appropriate communication channels. (¶ [0006]). **Zhang** teaches in an analogous art transmission analyzers (TAs) 36 that analyze and compare the appearance of a data packet on the plurality of ports of a network. The TA also time stamps the packet. Packet headers and time stamps are

transmitted between analyzers for comparison, analysis, and reporting to the controlling CPU. (Abstract, col. 1, ll. 13-67, col. 3, l. 50 to col. 4, l. 13).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify **AAPA's** prior art DFR and SER device 22 to add **Zhang's** TA 36. The artisan would be motivated to do so because enable **AAPA's** prior art DFR and SER device 22 to decode and analyze the digital data packets exchanged over appropriate communication channels, ¶ [0006]).

As such **AAPA** in view of **Zhang** teaches storing the incoming analog output and digitally encoded information signals together with corresponding timing information in a record as fault and sequence of events records in a non-volatile memory storage medium of a hosting device (**In order to meet common requirements, any DFR or SER uses non-volatile memory storage**, **AAPA** ¶ [0029]).

Claim 2:

AAPA teaches at least one digitally encoded information signal related to at least one of the electric power system and the associated secondary equipment is recorded (**In the past few years digital protection and control devices, or even instrument transformers, have emerged to work with power system signals that are not in the form of physical or analog quantities, but in the form of digital data packets exchanged over appropriate communication channels**, ¶ [0006]).

Claim 3:

AAPA in view of **Zhang** teaches the receiving digitally encoded information signals includes independently time tagging each incoming data packet for the record

(**transmission analyzers (TAs) 36 that analyze and compare the appearance of a data packet on the plurality of ports of a network. The TA also time stamps the packet. Packet headers and time stamps are transmitted between analyzers for comparison, analysis, and reporting to the controlling CPU**, **Zhang**; Abstract, col. 1, ll. 13-67, col. 3, l. 50 to col. 4, l. 13).

Claim 4:

AAPA in view of **Zhang** teaches reception of the digitally encoded information signals is recorded even if an incoming data packet is corrupted in that [i]n order to analyze the propagation of a random packet propagating between two ports of the network, The packet is time stamped as it passes the first port and its header stored. The time stamp is not added to the packet and continued on the network. The time stamp is stored at the analyzer along with the header. (**Zhang**; col. 1, ll. 44-49).

Claim 5:

AAPA teaches copies of a same incoming data packet are recorded if at least one of a re-transmit and an auto-repeat scheme is in place (**it is quite common to re-send the same information several times in order to make sure the information arrives at the intended destination**, ¶ [0006]).

Claim 6:

AAPA teaches the incoming data packets are encrypted packets recorded in their original encrypted form (**it is quite common to re-send the same information several times in order to make sure the information arrives at the intended destination; channel integrity messages may be exchanged to monitor the**

communication means; and check-sums or other security means (i.e. encrypted packets) **may be attached to the body of the message to ensure integrity of the data**, ¶ [0006]).

Claim 7:

AAPA does not explicitly teach "the encrypted packets are deciphered from their original encrypted form in real-time and stored in a decrypted form". However, **AAPA** does teach check-sums or other security means (i.e. encrypted packets) may be attached to the body of the message to ensure integrity of the data. (¶ [0006]). It would have been obvious to one of ordinary skill in the art at the time the invention was made that AAPA's encrypted packets would be deciphered. The artisan would be motivated to do so because deciphering the original encrypted form in real-time and storing them in a decrypted form is well known in the art and a person with ordinary skill in the art would have good reason to pursue the known options within his or her technical grasp.

Claim 8:

AAPA teaches auxiliary information contained in the data packet includes at least one of CRC and sequence numbers and is stored as a part of the record (**check-sums or other security means** (i.e. encrypted packets) **may be attached to the body of the message to ensure integrity of the data**, ¶ [0006]).

Claim 9:

AAPA in view of **Zhang** teaches time-synchronization data packets facilitating the time synchronization over the communication medium are time tagged and recorded in that TA 36 time stamps the packet. The time stamp is not added to the packet on the

LAN but is stored with the portion of the packet header in the TA's memory. (**Zhang**; col. 4, ll. 8-13).

Claim 10:

AAPA teaches existence and configuration of devices producing the digitally encoded information signals to be recorded is recognized automatically based on a self-description mechanism if supported by an applied communication protocol (**In the past few years digital protection and control devices, or even instrument transformers, have emerged to work with power system signals that are not in the form of physical or analog quantities, but in the form of digital data packets exchanged over appropriate communication channels. Such communication channels include, but are not limited to, direct fiber optic connections, Ethernet** (communication protocol)**, and serial ports, for example**, ¶ [0006]).

Claim 11:

AAPA in view of **Zhang** teaches a health status of the communication medium used to transport a content of the digitally encoded information signals is monitored via at least one of a hardware and software means, and detected problems are time tagged and recorded as a part of the record. (**Zhang**; col. 1, ll. 26-33).

Claim 12:

AAPA in view of **Zhang** teaches a percentage usage of the communication medium used to transport the digitally encoded information signals is monitored via at least one of hardware and software means, and recorded as a part of the record (**[n]etwork analyzers are expected to monitor the digital traffic or bit stream so as**

to identify and examine principally the headers and footers of each packet in order to analyze the digital health of the system. A transmission analyzer (TA) monitors digital transmission, **Zhang**; col. 1, ll. 26-33, col. 3, ll. 54-55).

Claim 15:

AAPA in view of **Zhang** teaches a health status of the corresponding analog transducer is recorded with the analog output signal of the corresponding transducer. (**Zhang**, col. 1, ll. 26-33).

Claim 16:

AAPA in view of **Zhang** teaches the time synchronization of the internal clock is achieved based on the incoming data packets instead of a dedicated time synchronization analog signal **([i]n order to synchronize the time stamping of the packet as it appears to each analyzer at a each different port, the clock outputs of the several analyzers are connected together; and a controlling CPU commands one of the analyzers to supply the master clock to the others**, **Zhang**; Abstract).

Claim 17:

AAPA in view of **Zhang** teaches the incoming packets used to synchronize the internal clock share a communication port with the monitored incoming data packets **([a] plurality of digital transmission network analyzers are arranged to analyze and compare the appearance of a data packet on the plurality of ports of a network. Each analyzer has its own internal clock for time stamping of data packets in addition to other internal timing purposes**, **Zhang**; Abstract).

Claim 30:

AAPA in view of **Zhang** teaches number of selftests are performed continuously or periodically in order to monitor integrity of the hosting device (**[n]etwork analyzers are expected to monitor the digital traffic or bit stream so as to identify and examine principally the headers and footers of each packet in order to analyze the digital health of the system. A transmission analyzer (TA) monitors digital transmission**, **Zhang**; col. 1, ll. 26-33, col. 3, ll. 54-55).

Claim 31:

AAPA teaches the hosting device is configured to report internal problems absent a power supply connected therewith in that [i]n order to meet common requirements, any DFR or SER uses non-volatile memory storage, which does not lose it's contents when power is interrupted to the memory. (**AAPA ¶** [0029]).

Claim 32:

AAPA in view of **Zhang** teaches the *hosting* device is capable of initiating communication with one of a higher order system (**AAPA, Fig. 1, Substation P&C Com. Networks**) and a device based (**AAPA, P&C device 20**) on pre-defined conditions, the pre-defined conditions include at least one of high memory utilization and self-test error (A test packet might be injected at one port and analyzed as it passes the other port, **Zhang;** col. 1, ll. 44-46).

Claim 33:

AAPA teaches the hosting device is configured to retrieve the record and change a configuration of the hosting device via at least one of public, proprietary SCADA, and substation integration protocols in that [i]n the past few years digital protection and

control devices, or even instrument transformers, have emerged to work with power system signals that are not in the form of physical or analog quantities, but in the form of digital data packets exchanged over appropriate communication channels. Such communication channels include, but are not limited to, direct fiber optic connections, Ethernet, and serial ports, for example. (¶ [0006]). Also, applicants' disclosure refers to these as common communication protocols (¶ [0024]).

Claim 34:

The limitation "a storing rate for both the analog and digitally encoded information signals is different for different channels corresponding to different physical inputs and different communication ports" would have been obvious to one of ordinary skill in the art at the time the invention was made and considered an obvious design choice that would not be beyond the scope of **AAPA** in view of **Zhang**. The artisan would be motivated to do so because removable memories art common in the art and a person with ordinary skill in the art would have good reason to pursue the known options within his or her technical grasp.

Claim 35:

The limitation "a storing rate for both the analog and digitally encoded signals is dynamic and controlled via user-definable conditions" would have been obvious to one of ordinary skill in the art at the time the invention was made and considered an obvious design choice that would not be beyond the scope of **AAPA** in view of **Zhang**. The artisan would be motivated to do so because removable memories art common in the

art and a person with ordinary skill in the art would have good reason to pursue the known options within his or her technical grasp.

Claim 36:

AAPA in view of **Zhang** teaches the hosting device simultaneously supports a multitude of communication protocols for the digitally encoded information signals over a single or multiple communication ports in that [a]nalyzers for digital transmission networks such as local area networks (LANs) and wide area networks (WANs) are well known. Networks have many different formats or protocols in which they convey digital data. (**Zhang**; col. 1, ll. 13-16).

Claim 37:

AAPA in view of **Zhang** teaches the hosting device supports primary and secondary communication ports in that In order to analyze what is happening to the bit stream between any two ports (primary and secondary communication ports), an analyzer must be connected to each port. A test packet might be injected at one port and analyzed as it passes the other port. (**Zhang**; col. 1, ll. 33-55).

Claim 38:

AAPA in view of **Zhang** teaches recording the digitally encoded signals separately for the primary and secondary ports (**In order to analyze the propagation of a random packet propagating between two ports of the network, The packet is time stamped as it passes the first port and its header stored**, **Zhang**; col. 1, ll. 33-55).

Claim 39:

AAPA teaches creating separate records for various groups of the digitally encoded signals based on a logical organization of the communication medium in that digital protection and control devices, or even instrument transformers, have emerged to work with power system signals that are not in the form of physical or analog quantities, but in the form of digital data packets exchanged over appropriate communication channel (digitally encoded signals based on a logical organization of the communication medium). (¶ [0006]). Also, the MSU 52 provides permanent storage for the recorded signals. In order to meet common requirements, any DFR or SER (i.e. prior art DFR or SER) uses non-volatile memory storage (MSU 52, creating separate records for various groups). (¶ [0029]).

Claim 40:

AAPA in view of **Zhang** teaches sending and receiving a test message intended to monitor at least one of integrity and quality of the communication medium (**Network analyzers are expected to monitor the digital traffic or bit stream so as to identify and examine principally the headers and footers of each packet in order to analyze the digital health of the system**, **Zhang**; col. 1, ll. 26-30).

Claim 41:

AAPA in view of **Zhang** teaches one of the primary and secondary devices sends and another echoes back the test message, wherein comparison of the sent and echoed messages allows monitoring parameters of the communication medium (**it is quite common to re-send the same information several times** (echoes back the test message) **in order to make sure the information arrives at the intended**

destination; channel integrity messages may be exchanged to monitor the communication means, **AAPA**; ¶ [0006]).).

Claim 42:

AAPA in view of **Zhang** teaches recording and overlaying (**the MSU 52 provides permanent storage for the recorded signals. In order to meet common requirements, any DFR or SER (i.e. prior art DFR or SER) uses non-volatile memory storage**, AAPA ¶ [0029]) with at least one of power system signals (**Fig. 2, Voltage Signals 34 or Current Signals 36**), selected video and audio signals available as digital packets (**[n]etwork analyzers are expected to monitor the digital traffic or bit stream so as to identify and examine principally the headers and footers of each packet in order to analyze the digital health of the system. A transmission analyzer (TA) monitors digital transmission**, **Zhang**; col. 1, ll. 26-33, col. 3, ll. 54-55), and signals related to monitoring electric power system (**Fig. 2, ON/OFF signals 40**).

15. Claims 13, 14, 18-25, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Admitted Prior Art, hereinafter **AAPA**, in view of **Zhang et al.** (US- 5535193), hereinafter Zhang, in further view of **Chattopadhyay** (US-20020103772), hereinafter Chattopadhyay.

Claim 13:

AAPA does not explicitly teach "the digitally encoded information signals are received via a wireless port". However, **AAPA** does teach [i]n the past few years digital protection and control devices, or even instrument transformers, have emerged to work

with power system signals that are not in the form of physical or analog quantities, but in the form of digital data packets exchanged over appropriate communication channels. Such communication channels include, but are not limited to, direct fiber optic connections, Ethernet, and serial ports, for example. (¶ [0006]). **Chattopadhyay** teaches in an analogous art the network interface 34 is a wireless interface with a transmitter for transmitting data over a wireless network (the digitally encoded information signals are received via a wireless port) via one of the communications links 40 using Code Division Multiple Access (CDMA). Alternatively, the network interface 34 may use any suitable wireless or wired transmission protocols and techniques to communicate over a wireless or wired network. (p. 2, ¶ [0024]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify AAPA's communication channels to use **Chattopadhyay's** wireless network interface 34. The artisan would be motivated to do so because wireless networks are well known in the art for transferring data because of their versatility and a person with ordinary skill in the art would have good reason to pursue the known options within his or her technical grasp.

Claim 14:

AAPA in view of **Zhang** in further view of **Chattopadhyay** teaches a health status of the wireless communication medium used to transport a content of the digitally encoded information signals is monitored via at least one of a hardware and software means, and detected problems are time tagged and recorded as a part of the record **([n]etwork analyzers are expected to monitor the digital traffic or bit stream so as**

to identify and examine principally the headers and footers of each packet in order to analyze the digital health of the system. A transmission analyzer (TA) monitors digital transmission, **Zhang**; col. 1, ll. 26-33, col. 3, ll. 54-55).

Claim 18:

AAPA does not explicitly teach "the memory storage medium is removable without disassembling the hosting device in which it is employed". However, **AAPA** does teach [i]n order to meet common requirements, any DFR or SER uses non-volatile memory storage. (**AAPA** ¶ [0029]). **Chattopadhyay** teaches in an analogous art [t]he computer 90 may also include fixed or movable storage media such as a magnetic computer disk, CD-ROM, or other suitable media to either receive output from, or provide output to, the servers 52, 54, or 56 or the clients 70. (p. 3, ¶ [0038]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify **AAPA's** non-volatile memory storage used in the prior art DFR or SER to be removable as in **Chattopadhyay's** movable storage media. The artisan would be motivated to do so because removable memories are common in the art and a person with ordinary skill in the art would have good reason to pursue the known options within his or her technical grasp.

Claim 19:

The limitation "the record of the memory storage medium is preserved for access through a separate reading device" would have been obvious to one of ordinary skill in the art at the time the invention was made and considered an obvious design choice that would not be beyond the scope of **AAPA** in view of **Zhang** in further view of

Chattopadhyay. The artisan would be motivated to do so because removable memories are common in the art and a person with ordinary skill in the art would have good reason to pursue the known options within his or her technical grasp.

Claim 20:

The limitation "the memory storage medium is removable and insertable with the hosting device being powered on" would have been obvious to one of ordinary skill in the art at the time the invention was made and considered an obvious design choice that would not be beyond the scope of **AAPA** in view of **Zhang** in further view of **Chattopadhyay**. The artisan would be motivated to do so because removable memories are common in the art and a person with ordinary skill in the art would have good reason to pursue the known options within his or her technical grasp.

Claim 21:

The limitation "the removable memory medium comprises of two or more independent storage units" would have been obvious to one of ordinary skill in the art at the time the invention was made and considered an obvious design choice that would not be beyond the scope of **AAPA** in view of **Zhang** in further view of **Chattopadhyay**. The artisan would be motivated to do so because removable memories are common in the art and a person with ordinary skill in the art would have good reason to pursue the known options within his or her technical grasp.

Claim 22:

The limitation "a recording function of the hosting device are retained during removal and insertion of the removable memory medium" would have been obvious to

one of ordinary skill in the art at the time the invention was made and considered an obvious design choice that would not be beyond the scope of **AAPA** in view of **Zhang** in further view of **Chattopadhyay**. The artisan would be motivated to do so because removable memories are common in the art and a person with ordinary skill in the art would have good reason to pursue the known options within his or her technical grasp.

Claim 23:

The limitation "the memory medium has no part thereof movable relative to any other part thereof" would have been obvious to one of ordinary skill in the art at the time the invention was made and considered an obvious design choice that would not be beyond the scope of **AAPA** in view of **Zhang** in further view of **Chattopadhyay**. The artisan would be motivated to do so because removable memories are common in the art and a person with ordinary skill in the art would have good reason to pursue the known options within his or her technical grasp.

Claim 24:

The limitation "the removable memory medium is encrypted and readable only after providing appropriate security information" would have been obvious to one of ordinary skill in the art at the time the invention was made and considered an obvious design choice that would not be beyond the scope of **AAPA** in view of **Zhang** in further view of **Chattopadhyay**. The artisan would be motivated to do so because removable memories are common in the art and a person with ordinary skill in the art would have good reason to pursue the known options within his or her technical grasp.

Claim 25:

The limitation "the removable memory medium is internally tested upon insertion and before use thereof" would have been obvious to one of ordinary skill in the art at the time the invention was made and considered an obvious design choice that would not be beyond the scope of **AAPA** in view of **Zhang** in further view of **Chattopadhyay**. The artisan would be motivated to do so because removable memories are common in the art and a person with ordinary skill in the art would have good reason to pursue the known options within his or her technical grasp.

Claim 29:

AAPA in view of **Zhang** in further view of **Chattopadhyay** teach the hosting device is controlled wirelessly for at least one of configuration changes, record management, and other supported functions. (**Chattopadhyay**; p. 2, ¶ [0024]).

16. Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Admitted Prior Art, hereinafter **AAPA**, in view of **Zhang et al.** (US-5535193), hereinafter Zhang, in further view of **Shima** (US-5808587), hereinafter Shima.

Claims 26-28:

AAPA, in view of **Zhang** does not explicitly teach authentication procedures that utilize wireless access performed with a proximity card, the proximity card absent electrical wires and an internal power source. **Shima** teaches in an analogous art a wireless access control system, where a proximity card carried by a user is accessed by a surveillance control unit installed at the gate of a building or the like, and information

such as personal data on the user or user's identity is read wirelessly to effect a certain control such as on-off control to lock or unlock the door of a room (authentication procedures that utilize wireless access performed with a proximity card). **Shima** also teaches in an access control system using a proximity card without any power supply, the surveillance control unit produces an inductive electromagnetic field, which is received by the coil of the signal reception antenna on the proximity card and the voltage induced in the coil is rectified to create operating power (this process is called "magnetic coupling") (the proximity card absent electrical wires and an internal power source). (Col. 1, 16-50; Fig. 1 and discussion therein).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify **AAPA's** traditional digital fault recorder (DFR) and sequence of events (SOE) recorder 22 to be able to use **Shima's** proximity card 2, reader/writer 1, antenna equipment 3 and card antenna 4. The artisan would be motivated to do so because it would afford **AAPA's** recorder 22 a higher level of security, limiting access of the contents to someone in possession of **Shima's** proximity card 2. The artisan would be motivated to do so because the use of proximity card are common in the art and a person with ordinary skill in the art would have good reason to pursue the known options within his or her technical grasp.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN J. TABONE JR whose telephone number is (571)272-3827. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JACQUES H. LOUIS JACQUES can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John J. Tabone, Jr./
Examiner
Art Unit 2117 08/29/2008